

### IN THE CLAIMS

Please amend the claims as follows:

1. (original) A system for rendering an image for display, including:

- a texture memory (134) for storing texture maps in a mipmap structure; texels in a texture map being specified by a pair of  $u$  and  $v$  coordinates;
- a rasterizer (120) operative to, for a texel  $(u, v)$ ,
  - determine corresponding initial 4D mipmap levels  $(mml_u, mml_v)$ ;
  - determine a magnification factor representing a magnification that occurs when the texel is mapped to a corresponding pixel position on the display; and
  - determine corresponding final 4D mipmap levels in dependence on the determined initial 4D mipmap levels  $mml_u, mml_v$ , and the magnification factor; and
- a texture space resampler (132) for obtaining texture data from a texture map identified by the pair of final 4D mipmap levels;
- a texture mapper (140) for mapping the obtained texture data to corresponding pixel data defining the display image.

2. (original) A system as claimed in claim 1, wherein the magnification factor represents a magnification in a vertical direction indicated by coordinate  $v$ .

3. (original) A system as claimed in claim 2, wherein the rasterizer is operative to determine a final vertical 4D mipmap level  $fmml_v$  by adjusting  $mml_v$  to identify a lower resolution vertical 4D mipmap level if the magnification factor is less than a predetermined threshold and maintaining the determined  $mml_v$  mipmap level otherwise.

4. (original) A system as claimed in claim 1, wherein:

- the texture memory is arranged to store the texture maps in a 4D mipmap structure; each texture map being identified by a pair of 4D mipmap levels;
- the texture space resampler is operative to on-the-fly reconstruct at least part of a texture map of a 4D mipmap identified by the pair of initial 4D mipmap levels from a texture map of a 4D mipmap in the texture memory identified by the pair of final 4D mipmap levels for use by the rasterizer.

5. (original) A system as claimed in claim 1, wherein:

- the texture memory is arranged to store the texture maps in a

3D mipmap structure; each texture map being identified by a respective 3D mipmap level  $mml$ ;

- the texture space resampler is operative to on-the-fly reconstruct at least part of a texture map of an identified 4D mipmap from an associated 3D mipmap with level  $mml$  in the texture memory.

6. (currently amended) A system as claimed in ~~claims 3 and 5~~claim 3, wherein the 3D mipmap level  $mml$  of the associated 3D mipmap is given by  $\text{MAX}(mml_u, fmml_v)$ .

7. (currently amended) A system as claimed in ~~claims 4 and 5~~claim 4, wherein the 3D mipmap level  $mml$  of the associated 3D mipmap is given by  $\text{MIN}(mml_u, fmml_v)$ .

8. (currently amended) A system as claimed in ~~claims 4 and 5~~claim 4, wherein the 3D mipmap level  $mml$  of the associated 3D mipmap is determined in dependence on a predetermined maximum anisotropy level  $a$ .

9. (original) A system as claimed in claim 8, wherein the 3D mipmap level  $mml$  of the associated 3D mipmap is given by  $\text{MAX}(\text{MAX}(mml_u, fmml_v) - a, \text{MIN}(mml_u, fmml_v))$ .

10. (original) A computer including a central processing unit, a memory, a display, and a system as claimed in claim 1.

11. (original) A method of rendering an image for display, including:

- storing texture maps in a mipmap structure; texels in a texture map being specified by a pair of  $u$  and  $v$  coordinates;
- in a rasterization operation determining, for a texel  $(u, v)$ :
  - corresponding initial 4D mipmap levels  $(mml_u, mml_v)$ ;
  - a magnification factor representing a magnification that occurs when the texel is mapped to a corresponding pixel position on the display; and
- corresponding final 4D mipmap levels in dependence on the determined initial 4D mipmap levels  $mml_u, mml_v$ , and the magnification factor;
- in a texture space resampling operation, obtaining texture data for a texture map identified by the final 4D mipmap levels; and
- mapping the obtained texture data to corresponding pixel data defining the display image.

12. (original) A computer program operative to cause a processor to perform the method of claim 11.